ROBUST AND LOW COST OPTICAL SYSTEM FOR

SENSING STRESS, EMOTION AND DECEPTION IN HUMAN SUBJECTS

ABSTRACT OF THE DISCLOSURE

A method and related apparatus for sensing selected emotions or physical conditions in a human subject. The technique employs a two-dimensional camera to generate a facial image of a human subject. Then, an image processing module scans the image to locate the face position and extent, and then scans for selected critical areas of the face. The size and activity of the selected critical areas are monitored by comparing sequential image frames of the subject's face, and the areas are tracked to compensate for possible movements of the subject. The sensed parameters of the selected critical areas are compared with those stored in a database that associates activities of the critical areas with various emotional and physical conditions of the subject, and a report or assessment of the subject is generated.